

Rainy Days.—The number of days, during the month, on which some rain or snow fell is as follows: Alpena, 27; Buffalo, 26; Cleveland, 25; Detroit, 21; Erie, 25; Grand Haven, 22; Morgantown, 21; Oswego, 25; Pittsburgh, 22; Port Huron, 27; Rochester, 27; Toledo, 21—from which it will be seen that in the Lake region the precipitation has been remarkably frequent. The number of days on which precipitation has occurred in the remaining districts is as follows: New England, 9 to 18; Middle Atlantic States, 6 to 14; South Atlantic States, 9 to 13; Gulf States, 6 to 18; Ohio valley and Tennessee, 5 to 15; Northwest, 3 to 17; Rocky Mountain stations, 5 to 11.

Cloudy Days.—The number of days on which the cloudiness has equalled eight on a scale of ten, as reported by voluntary observers, ranges as follows: New England, 6 to 25; Middle States, 4 to 25; South Atlantic States, 4 to 13; Gulf States, 5 to 17; Ohio valley and Tennessee, 6 to 20; Upper Lake region, 15 to 22; Northwest, 1 to 13.

Drouths.—A scarcity of water is reported from some portions of the Middle States, New England and the Northwest, owing to the continued cold weather, which has prevented the snow from melting. The lack of rain in California has caused some apprehensions on the part of farmers that agricultural interests may suffer.

RELATIVE HUMIDITY.

The mean relative humidity for the month, as reported from the Signal Service stations, ranges as follows: in New England, 69 to 78 per cent.; Middle Atlantic States, 66 to 80; South Atlantic States, 62 to 74; Gulf States, 57 to 74; Indian Territory, Arkansas and Tennessee, 55 to 72; Lower Lake region, 72 to 80; Upper Lake region, 61 to 79; Ohio valley and Northwest, 64 to 74; Cheyenne, 66; Denver, 51; Pike's Peak, 65; Santa Fe, 46; Virginia City, 62; Salt Lake City, 89; Portland, Or., 82; San Francisco, 66; San Diego, 58. The unusually moist atmosphere at Salt Lake City was accompanied by a dense fog, which hung over the station almost continually from the 5th until the 20th.

WINDS.

Prevailing winds.—These are shown by the arrows on chart No. II. They have very generally been from N., NW. or W. over the entire country from the Rocky Mountains eastward to the Atlantic, except in Tennessee and the Ohio valley, where they have been more variable.

Total movement of the air.—The following are the largest total movements of the air as recorded at the Signal Service stations: Pike's Peak, 19,641 miles; Cape May, 16,407; Sandy Hook, 14,954; Thatcher's Island, 13,669; Kitty Hawk, 12,166; Cape Lookout, 11,737; Barnegat, 11,445; Erie, 11,289; Grand Haven, 10,209; Wood's Hole, 10,168. The smallest movements have occurred at the following stations: Salt Lake City, 1,636 miles; Nashville, 2,648; Virginia City, 2,684; Portland, Or., 2,727; Dubuque, 2,854; San Diego, 3,079; San Francisco, 3,115; Shreveport, 3,326.

Highest Winds.—Among the highest hourly wind velocities reported from Signal Service stations are the following: Boston, 29th, E. 57; Buffalo, 15th, W. 60; Bismarck, — 64; Cape May, 9th, W. 72, 17th, NW. 60; Eastport, 18th, SE. 54, 29th, E. 69; Erie, 16th, W. 52; Grand Haven, 15th, SW. 66; Knoxville, 8th, SW. 54; Malone, 15th, S. 52; Marquette, 9th, W. 54; Milwaukee, 15th, W. 54; Morgantown, 8th, W. 54; New York, 9th, W. 60, 16th, NW. 60; Newport, 9th, SW. 60; Pembina, 15th, NW. 54; Pike's Peak, 7th, — 66, 29th, — 90; Sandy Hook, 9th, W. 84, 16th, NW. 63, 18th, NW. 60, 30th, W. 68; Thatcher's Island, 29th, E. 60. The observer at Detroit reports that during the storm of the 15th and 16th, in which the wind attained a maximum velocity of 35 miles per hour from the W., the changes in pressure and temperature were unprecedented in respect to magnitude and rapidity. A fall in pressure of .20 of an inch was recorded in two hours, followed by a rise of .86 in eight hours. The temperature rose 17° in eight hours and subsequently fell 32° in the same interval. The approach of this storm was fully anticipated by the Cautionary Signals. The high winds accompanying low barometer No. V, appear to have been very severe in Newfoundland. According to reports from St. Johns falling barometer and gales continued throughout the 13th, the barometer falling to 28.60 at 9 a. m. A *water-spout* was observed at Wilmington, N. C., on the 29th, at 8 a. m. At Augusta, Ill., a violent *whirlwind* occurred on the 8th, at 9 a. m.

VERIFICATIONS.

Indications.—The detailed comparison of the tri-daily weather indications with the telegraphic reports for the succeeding 24 hours shows a percentage of verifications of 88.1 and a percentage of omissions of 0.9 in detail. The percentages have been as follows: for weather, 95.2; wind, 86.6; temperature, 85.6; barometer, 85.0. The geographical distribution of the verifications has been as follows: New Eng. 88.9; Mid. States, 90.2; S. Atlantic, 90.4; E. Gulf States, 89.0; W. Gulf States, 87.8; Lower Lake region, 89.3; Up. Lake region, 88.1; Tenn. and the Ohio valley, 90.0; Up. Miss. valley, 85.1; Lower Mo. valley, 80.2.

Cautionary Signals.—There have been displayed during the month at U. S. S. stations 192 cautionary storm signals; of these 142 were verified at the stations, and 19 others, or 83 per cent. in all, verified within